

Title (en)

Method and device for adaptive noise measurement of a video signal

Title (de)

Verfahren und Vorrichtung zur adaptiven Rauschmessung eines Videosignals

Title (fr)

Procédé et dispositif pour la mesure adaptative du bruit d'un signal vidéo

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EP 2413586 A1 20120201 (EN)

Application

EP 11175206 A 20110725

Priority

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Abstract (en)

The present invention relates to method of adaptive noise measurement of a video signal comprising a sequence of images (10, 12, 13, 14, 15). The proposed method comprises the steps of searching (S10) one or more spatially uniform areas (20, 22) within a current image (10), determining (S20) a spatial uniformity value of said one or more spatially uniform areas (20, 22) and combining said spatial uniformity values to obtain a spatial noise value representing a first measure for the amount of noise in said current image (10), detecting (S30) motion by comparing the current image (10) with one or more preceding images (12, 13) and/or one or more succeeding images (14, 15) of said sequence of images by use of a motion threshold to obtain one or more motion maps (40, 42) indicating the amount of motion between the current image and the respective preceding or succeeding image, searching (S40) one or more static areas (50, 52, 54) within said one or more motion maps (40, 42, 44), determining (S50) a temporal uniformity value for said one or more static areas (50, 52, 54) by comparing image values at positions in said one or more preceding images (12, 13) and/or said one or more succeeding images (14, 15), at which a low amount or no motion is indicated in the respective one or more motion maps (40, 42, 44), said temporal uniformity value representing a measure for the amount of noise at said positions in said current image, and combining (S50) said obtained temporal uniformity values to obtain a combined noise value representing a second measure for the amount of noise in said current image (10).

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Citation (applicant)

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